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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/940,749

08/28/2001

James H. Lie

0325.00503

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01/05/2005

CHRISTOPHER P. MAIORANA, P.C.

24840 HARPER

ST. CLAIR SHORES, MI 48080

EXAMINER

THOMPSON, ANNETTE M

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/940,749

Applicant(s)

LIE, JAMES H.

Examiner

A. M. Thompson

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 10, 15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-8, 11, 13, 14, 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In view of the appeal brief filed on 07 September 2004, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, Appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or (2) request reinstatement of the appeal.

2. Claims 1-4, 6-11, and 13-20 are pending.

### ***Specification***

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The meaning and relevance of the term "superset grid" is not apparent from the specification. Pursuant to claim 18, the meaning and relevance of "increased bandwidth channels" is not disclosed in the specification.

### ***Claim Objections***

5. Claims 1, 2, 9, 10, 13, 19, and 20 are objected to because of the following informalities: Pursuant to claim 9, at line 3, change "to" to - -for- -. Pursuant to claim 2, at line 2, remove the semicolon. Pursuant to claim 10, at line 5, after "late changes", specify to or for what the late changes are made.

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Pursuant to claim 13, at line 3, after "pins", insert "of said superset pinout". Pursuant to claims 1, 19 and 20, these claims recite the step of "marking each pin"; Applicant must specify how or with what each pin is marked for clarity. Pursuant to claim 20, remove the "(A)" and "(B)" notations as it is unclear what they are supposed to represent, i.e. do they represent method steps ?; further step ? (B) does not further limit the device limitation. Additionally, pursuant to claim 20, each limitation must be separated by a semicolon, not a comma. Appropriate correction is required.

6. Claims 15-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Pursuant to claim 18, reducing layout and footprint change may result from creating the superset pinout; however it does not further limit the creation of the superset pinout. Pursuant to claims 15-17, here again the limitations recited may result from creating the superset pinout; however the limitations recited does not further limit the creation of the superset pinout.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which

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was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Pursuant to claim 19, a family of devices *having layout variations* is not enabled by Applicant's specification. Pursuant to claim 20, Applicant's specification does not enable an apparatus comprising a configured device; it enables a configured device. For examination purposes, the claim is treated as reciting "a device configured to generate a superset pinout. . . ."

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Pursuant to claim 10, "to allow for late changes without affecting said board layout *and without external components*" does not accurately claim Applicant's invention as disclosed on page 11, lines 9-15. Does Applicant intend to recite a limitation that reads - -to allow for a change fro one member of said family of devices to another member of said family of devices. . . - -.

### ***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Rejection of claims 1, 9, 15 and 20**

12. Claims 1, 9, 10, 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. (Malhotra), U.S. Patent 6,320,410. Malhotra discloses a complex programmable logic device (CPLD) circuit and method for optioning the density of the CPLD to provide convenient design migration. Malhotra does not explicitly disclose the creation of a superset pin listing or a superset pinout. Nor does Malhotra explicitly disclose the marking of pins. However, Applicant's specification discloses that a 'superset' involves combining elements that may be shared by more than one member (page 7, lines 6-11). Malhotra implements such a procedure although Malhotra does not use the term "superset". Additionally, Malhotra labels pins which, based on Applicant's specification at page 8, lines 3-8, is tantamount to the 'marking' procedure disclosed and claimed by Applicant. Therefore, it would have been obvious to one of ordinary skill in the art that although Malhotra does not utilize Applicant's terminology, Malhotra at least suggests if not discloses by another name the process of superset pin creation and pin marking.

13. Pursuant to claim 1 which recites [a] method for generating a superset pinout comprising defining a pinlist for each device within said family of devices (col. 1, ll. 25-50); generating a superset listing of pins from said pinlist (col. 1, ll. 51-58); creating the superset pinout from said superset listing of pins (col. 1, ll. 51-67; see also table 2); marking each pin (Table 2 illustrates the marking of each pin).

14. Pursuant to claim 9, wherein a common footprint is provided to each member of the family of devices (col. 5, ll. 19-27).

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15. Pursuant to claim 10, which recites designing a board layout (col. 1, ll. 40-58; col. 5, ll. 10-26).

16. Pursuant to claim 15, which further comprises allowing for migration of devices (col. 5, ll. 19-35).

17. Pursuant to claim 20, which recites a device configured to define a pinlist (col. 1, ll. 25-50); generate a superset listing of pins from said pinlist (col. 1, ll. 51-58); create the superset pinout from said superset listing of pins (col. 1, ll. 51-67; see also table 2); mark each pin of said superset pinout (Table 2 illustrates the marking of each pin).

### ***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the enclosed PTO-892.

19. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

20. Responses to this action should be mailed to the appropriate mail stop:

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Mail Stop \_\_\_\_\_

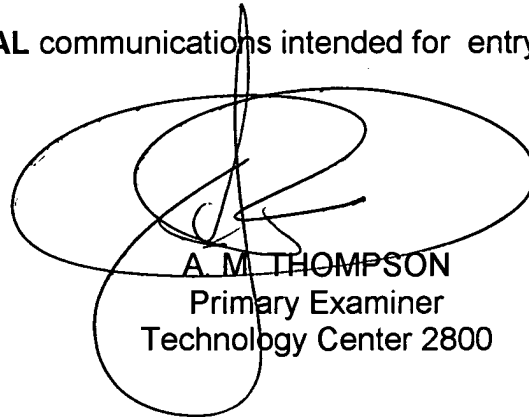
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P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry)



A. M. THOMPSON  
Primary Examiner  
Technology Center 2800